ALL IN ONE

Vehicle Video Recorder

User Manual

2012 NOV V1.1

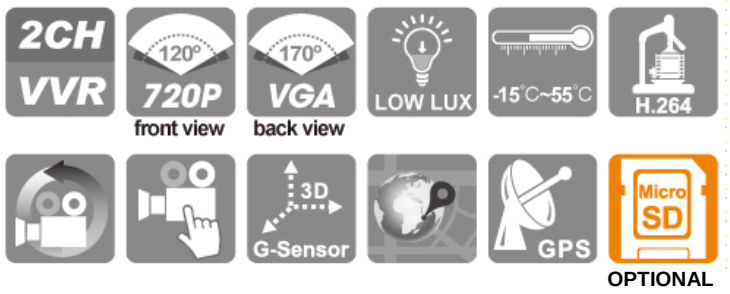


Table of Contents

A. Features....1
B. Specification....2
C. Structure of Product....5
D. Dimension....5
E. Installation Guide....6
F. Functions of Remote Controller....7
G. Start / Stop Recording....10
H. Software Player Instruction....11
I. Formatting Memory Card....19
J. Restoring Memory Card....21

A. Features

1. Suitable for all personal vehicle, taxi, bus, truck……
2. Small size, easy installation and dismount, it does not affect the driver's line of sight.
3. Insert the card and power on to start recording without additional operating.
4. Simultaneously recording interior and exterior condition.
5. Having full time, date recording and display on the screen directly.
6. Recording driving condition, sound, G-Sensor and GPS data.
7. Front view angle approx. 120 degrees. Back view angle approx. 170 degrees.
8. Recording track of driving routes which can be shown on Google Map when we play the video.
9. Micro SD memory card Class 10 or above recommend.
10. G-sensor sensitivity can be adjusted according to road situations. When detect a strong shock, system will start emergency recording and keep the files without being overwritten.
11. Professional file formats, without built-in lithium battery, no needs to afraid of heat and bursting concerns, it is the real black box.

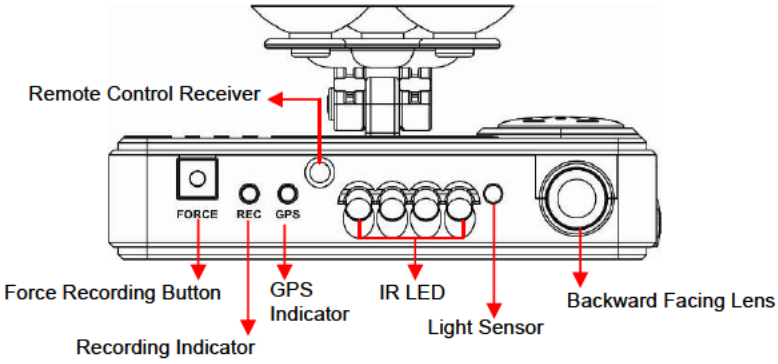
B. Specification

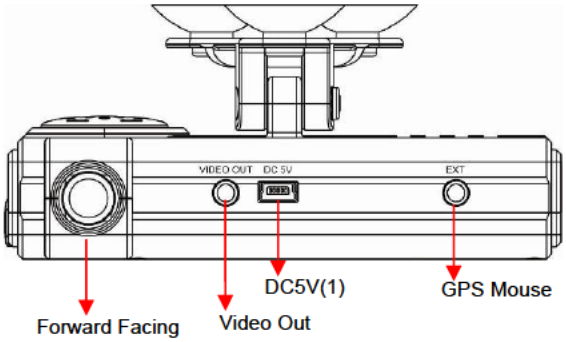
Item	Specification
Chipset	H.264 image compression chip
Sensor Device	Forward facing lens: 720p CMOS Sensor
	Backward facing lens: VGA CMOS Sensor.
View Angle	Outside vehicle approx : 120 degree
	Inside vehicle approx : 170 degree
Voltage	Please use 5V±5%, 1A Cigarette lighter adapter. The machine needs 4.7v to start.
Operating Temp	-15℃~+55℃ (Inside Vehicle).
Storage Device	Micro SD Card (4G/8G/16G/32G) of Silicon Power and Transcend recommend. 4GB/Class 10 or above specification is available.
Recording Frame	Forward facing lens: 1280x720; Highest resolution: 30fps/25fps (NTSC/PAL)
	Backward facing lens: 640x480; Highest resolution: 15fps/15fps (NTSC/PAL)
	Auto record when power up system; backward facing lens can be closed by setting of software.
Recording Content	Date, time, image, sound, G-sensor data, GPS data.
Recording Format	Specific format for software player.
Microphone	Build-in high sensitivity of single microphone for automatic voice adjustment.
Time Setup	Auto-calibrating by GPS signals. If GPS is not available, the built-in clock will be used.
G-Sensor	Internal 3D G-Sensor.

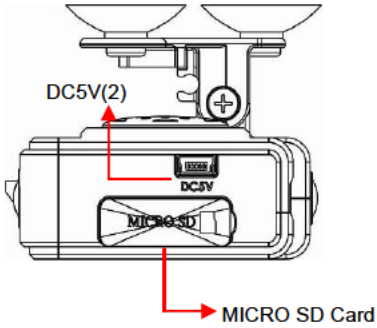
Out Device	(a) TV-Out (1 Vp-p composite video output, 75 ohms), Video Output format: NTSC / PAL alternative. (b) Force Record Button: For emergency recording. Gleams in night time. (c) Red light: Recording indicator. In emergency recording, it flashes more frequently. (d) Green light Flashing: Searching GPS signals. Light on : GPS positioning ready (e) External hole to connect GPS Mouse Remark: When IR turns on, the LED light will be dimmer.
Description	(a) The GPS positioning speed will be influenced by solar film of the front windshield, weather or other environment factors. (b) Starting and closing time of infra red will be subject to light intensity, the installation location, front windshield and other factors ... (c) Day and night mode having delay mechanism for about 30 seconds. Night mode will be priority when power on. (d) Memory card formatted by using the playback software, windows will recognize the remaining capacity about 80MB for copying the player software to memory card.
Important Notice	(a) The current consumption of the machine over standard USB hole (output 500mA). When connect with PC power supply, it's better to buy another power cable with two holes for portable hard drive. (b) Machine must be installed in the area that wipe can be reached to ensure the clarity of recording video. (c) Please do not plug the power in both micro-USB

	soctets. The machine might be damaged. (d) If not use the player to format memory card, the machine will force to format the entire memory card and then start recording. (e) It's better not crossing the top of the machine and the left side of GPS. We suggest to put the cables via the right side of the VVR and then connect to the ceiling to get better GPS signal. (f) Initial screen and Live View screen may change due to software update or revision without notice. (g) The machine itself has a distinction between NTSC or PAL. Video output to the monitor with corresponding screen system. (h) Interior lens adopt ultra-wide-angle lens. There will be slight cover corner phenomenon at the corner edge. (i) Memory card has the number of reading and life issues, please check and use the computer to play video regularly in order to make sure the memory card can read and write properly.
Accessories	Standard: (a) 5V cigarette Power adapter (b) USB card reader (c) 4 pings, 3.5 inch headphone jack to RCA output cable. (d) Suction cup bracket (e) Bracket holder (f) Remote control (g) Product CD (h) Quick Guide
	Optional: (a) Micro SD card (4GB/8GB/16GB/32GB) (b) External GPS Mouse (4P Phone Jack Connect)

C. Structure of Product



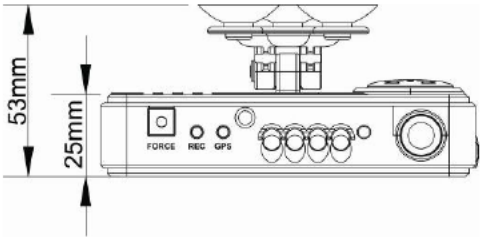


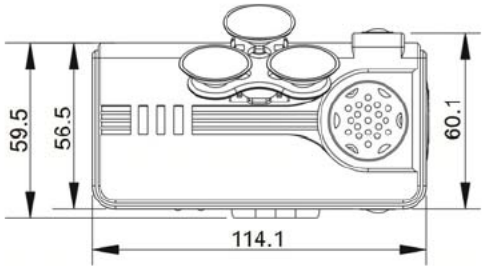


※ **Please do not plug the power in both micro-USB terminals. The machine might be damaged.**

D. Dimension

UNIT：mm





E. Installation Guide

Make the bracket facing upward.

Assemble the suction cups.

Set up the machine in proper position.

Adjust the viewing angle.

Plug the power cable to socket on photo No. 5 or No. 6, please do not plug in both sockets at the same time)

Plug in the cigarette adapter.

When the power is successfully connected, the IR LED will light on for 10 sec.

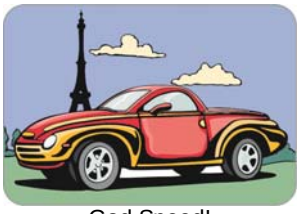
Force Record button: Light on when power is connected successfully.

Green: flashing while GPS is positioning, Light on when GPS is ready.

Red: flashing during recoding, Fast flashing in emergency mode.

Force Record Button: When press down, the red light will flashing rapidly. In the night its LED will light on as indicator.

Installation Complete!

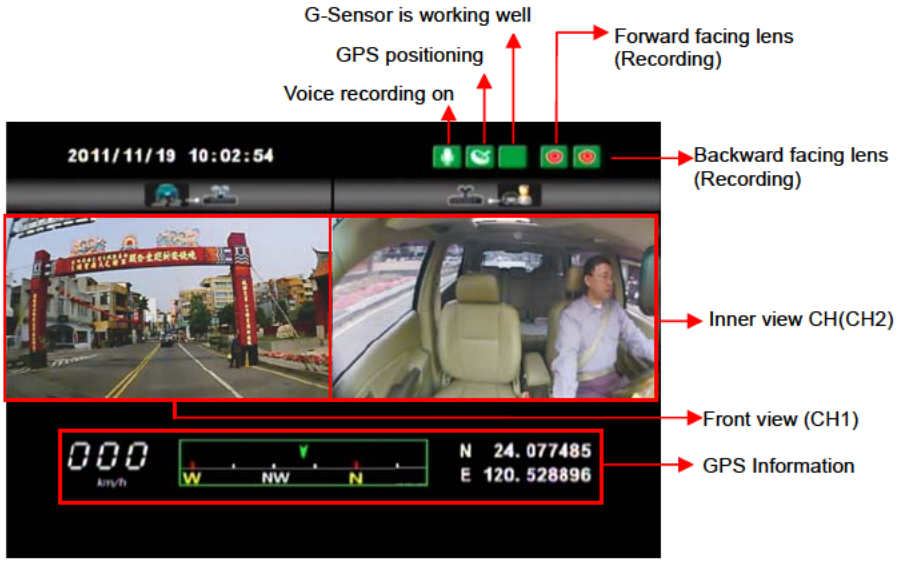


God Speed!

F. Functions of Remote Controller

Button		Function Description
	Force Recording Button	Manually establish a recorded file which cannot be overwritten.
Mode	Mode Button	Full screen / Half screen spilt shift
Menu	Menu Button	Firmware version of the device displayed
	Mute Button	Voice recording On/Off

◆ Introduction of OSD Interface: (Video output from connecting TV-OUT line to the device)



1. The right side of LIVE view will show , , left figure is presented as forward facing lens, the other one is backward facing lens.
When the figure becomes , the backward facing lens is turned off and the microphone recording is muted simultaneously.

2. Event Record: Appears in the top right side of LIVE screen, it means that G-Sensor didn't receive abnormal signal. When you press the record button from the remote control or click this icon at the right top to force the machine to record manually.
When the icon appears at the top right that means G-Sensor detects abnormal vibrations and start force recording.

3. When turns to Live screen, it could click via remote control to switch CH1(Front View) or CH2(Inner View), dual CH display with GPS information as shown below:

Front View (CH1)

Inner View (CH2)

Dual CH Display With GPS Information

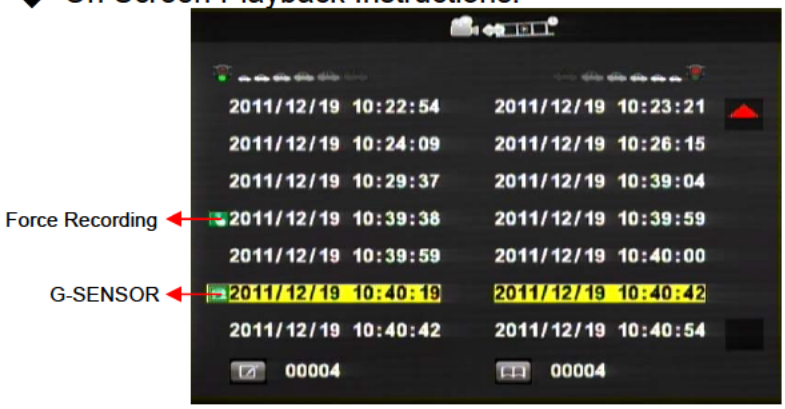
4. When turns to Live screen, it could click via remote control to show Firmware version. Firmware Version: 2001

5. In the LIVE screen you can choose whether open the recording, click the mute button on the remote control icon will appear top right of the screen, that means stop recording; When the icon appears in the top right that says on the recording.

6. GPS display: When icon appears at the top right of the Live screen, it means there is no GPS signal; when the icon appears in the top right of the Live screen, it indicates that the GPS is working.

7. Playback page password instructions: Click the playback button of remote control When the machine sets up playback password, playback page will be asked to enter a password (this feature requires to set up on player), Click the remote control enter password in the input page. Click the remote control Select the next position; when the password is completed, you can click on the remote control Enter the playback list page.

◆ On Screen Playback Instructions:



Enter the playback page to stop recording

1. Click the remote control in the playback page select the time you want to play the file.
2. Click the remote control select the next file page of playback list.
3. When you select a file to play the file, then click the remote control to start the playback.
4. To pause playback, tap the pause button , and please click again to continue the footage playback.
5. To leave the playback mode, click the remote control to return playback list page, click remote control again, to back to live mode.

◆ To leave the Playback page simply click the stop button on the remote control to leave the file page and then enter the LIVE screen.

G. Start / Stop Recording

When power on the device, the screen will show a welcome message for the device starts if connected to TV-Out. The firmware version of the device will displayed before LIVE view of recording starts.

1. Power on / Start Recording

The device can be started completely after power on for one minute. When the device is started on programming, the green indicator light is flicker before GPS positioning completed. After one minute, the red indicator light will be kept flicker until show n on right side of LIVE view; the device starts recording now.

Definition of Indicator

- Force record button: good for using at night
- Red indicator of REC:
  Stable flicker of red indicator: On recording
  Fast flicker of red indicator: Force recording

- Green indicator of GPS positioning:
  Flicker of green indicator: GPS 3D positioning
  Steady of green indicator: GPS 3D positioning accomplished.

2. Power Off / Stop Recording

Power off and enter playback page to stop recording.
Power off and then remove the memory card to read the recording file in computer.

H. Software Player Instruction

How to read the files from Micro SD card?

Open the plastic lid.

Remove the card from the machine.

Insert the Micro SD card into the card reader (please make sure the direction is correct).

Connect the card reader to the PC and use the software in CD to play the files.

1. **Play Video**

Start the program (you can locate it in the CD-R),
The main screen will be like the picture below.
Press button, and choose where you insert memory card to play the files, or click on button to manually select the memory card or recorded file in the hard disk.
During playback, the button would change to button and you can click on it to pause playback.

2. **Main Screen**

Viewer Interface

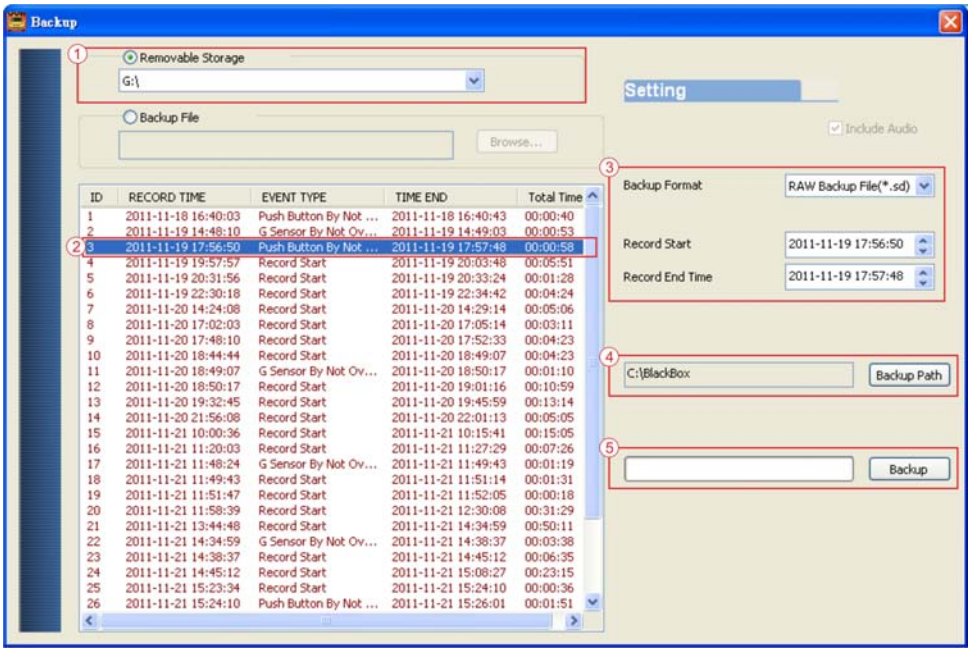
a. Play & Settings Icon Instruction:

	play previous frame
	play backward
	Pause
	Stop
	Play
	Play next frame
	Play next file

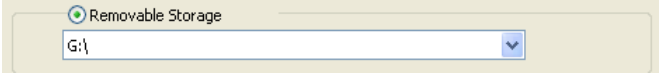
	Disk back up
	Setting
	Google map
	Play back
	Snapshot
	Format Micro SD Card

- Disk Backup

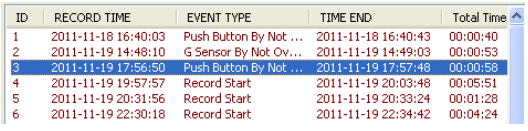
  Save the recorded files to your PC. Click on the button and it will pop up the screen as below.



Step1: Select the origin for the Micro SD card



Setp2: Select the recorded file which you want to backup



ID	RECORD TIME	EVENT TYPE	TIME END	Total Time
1	2011-11-18 16:40:03	Push Button By Not ...	2011-11-18 16:40:43	00:00:40
2	2011-11-19 14:48:10	G Sensor By Not Ov...	2011-11-19 14:49:03	00:00:53
3	2011-11-19 17:56:50	Push Button By Not ...	2011-11-19 17:57:48	00:00:58
4	2011-11-19 19:57:57	Record Start	2011-11-19 20:03:48	00:05:51
5	2011-11-19 20:31:56	Record Start	2011-11-19 20:33:24	00:01:28
6	2011-11-19 22:30:18	Record Start	2011-11-19 22:34:42	00:04:24

Step3: Choose the backup file format

(1)Micro SD Card Backup (*.sd)

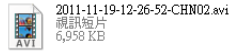
(2)AVI File Backup (*.avi)

Backup format：

(1) Micro SD card backup format

2010-10-18-10-36-11.sd SD 檔案	Micro SD Card File type (*.sd)

(2)AVI File Backup(*.avi)

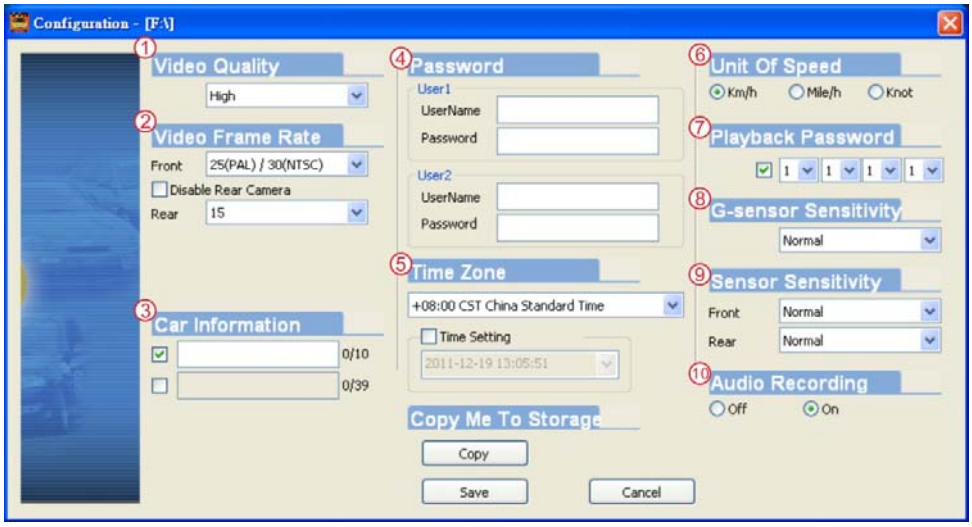
	Chn01 is the forward facing lens record. The file name is *.avi.
	Chn02 is the backward facing lens record. The file name is *.avi.

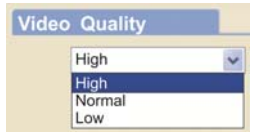
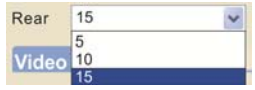
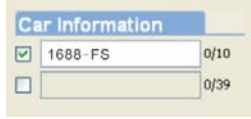
★Note: If backup by original format of Micro SD card, the file recorded with location of GPS (longitude and latitude), speed and G-SENSOR. If backup by the format of *.avi, the file recorded date, video and audio. We suggest to backup by using original format of Micro SD card.

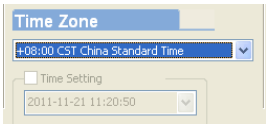
Step4: Backup Path: Select your backup destination (e.g.: C:\blackbox)

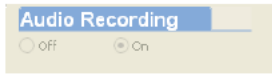
Step5: Backup : Start backup the file to your specified destination

■ Setting
One side of card translator is plug into Micro SD card, the other one is plug into USB plot before recording. Record format and display of the device can be set by configuration of PC client. After setting completed, the Micro SD card can plug into the device and start recording again.



1	Video Quality		Select the video Quality: High/ Normal / Low
2	Video Frame		Set the recording frame rate for front camera NTSC(5 / 10 / 15 / 30) fps PAL(5 / 10 / 15 / 25)fps
			Turn the recording off for inside camera
			Set the recording frame rate for inside camera (5 / 10 / 15)fps
3	Car Information		The license plate number information can be input here, the film is easy to identify which vehicles to record video record (only English letter and number acceptable.

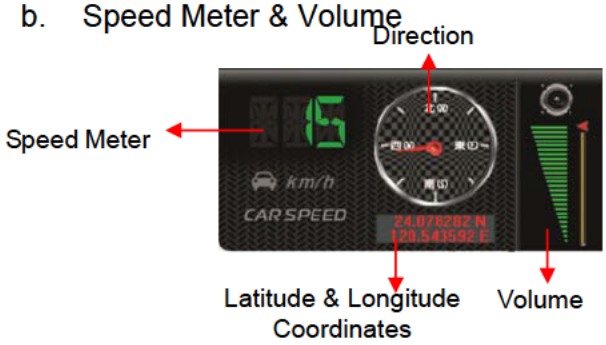
4	Password		This feature of the Micro SD card encryption, to prevent others from accessing any data. Set a password to 15 characters limited: 123,456,789,123,456. After setting the password, it is required to enter password to access the playback file, setting, formatting memory card.
5	Time zone		Time Zone: GMT (GPS auto time correction)
6	Unit Of Speed		You can set up the speed unit here. Km/h: kilometer per hour Mile/h: mile per hour Knot：knot per hour ★ Note：1 KM=0.6214 mile, 1 mile=1.6093KM, 1 Knot =1.853KM
7	On Screen Playback Password		On Screen playback password: When it is enable, need to enter password first before enter playback mode. Do the settings first and then set the password. The password setting from 0 to 9.
8	G-sensor Sensitivity		Set the sensitivity for G-sensor. Six mode can be chosen. OFF, Light, Low, Normal, High, Heavy Note: In some uneven road, you might want to decrease the sensitivity to prevent repeated emergency recording.

9	Sensor Sensitivity at night		The night sensitivity settings for front and interior lens: very low, low, normal, high, very high. According to night conditions set sensitivity.
10	Audio Recording		Audio recording. Open: recording voice / Close: stop voice recording.

■ Snapshot

While playing the recorded file, you can use this function to snapshot the picture and save it into your PC.
Default saving path for snapshot picture will be in /Snapshot folder.
File type: BMP

b. Speed Meter & Volume

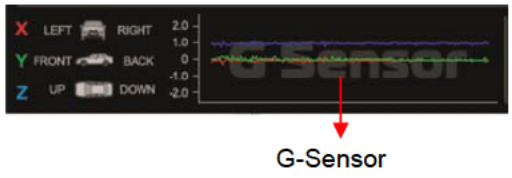


c. Video Search & Play Speed

(1)Video Search：You can use the mouse to drag the bar to search the video quickly.
(2)Play Speed：Support 2x, 4x fast forwarding and -2x, -4x slow play mode.

d. G SENSOR

When detecting extraordinary G-force, the machine will record the images and separate the recorded file from normal recording.



(1) X: The G-force from left & right of the car.
(2) Y: The G-force from front & back of the car.
(3) Z: The G-force from upside & downside of the car.

I. Formatting Memory Card

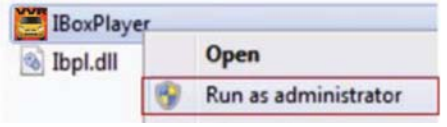
When You Should Format Micro SD CARD?

When you use the Micro SD card for the first time or just purchase a new card, you should format it in order to use it correctly. (The bundled Micro SD card has been formatted and tested by the manufacturer already.)

Notice:

1. Before formatting Micro SD card, please ensure to unlock it first.

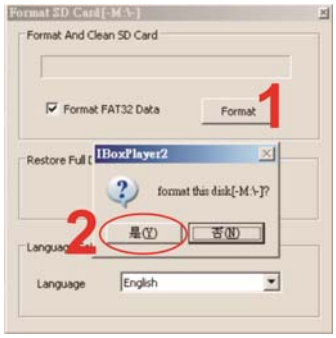
2. If the card is unlocked but still cannot be formatted, this might be caused by Window Vista / 7 security restrictions. Please run the program as Administrator to prevent from this problem.

1	2
	

The steps are shown in below:

1. Insert the CD in your PC and open the directory Find and run program and click on “Format Micro SD Card”.

2. Click on『Format』to start formatting the Micro SD card. Please see the following steps as reference.

Windows XP	Windows 7
	

3.When formatting is completed, please insert the card into the machine for recording.

Open the plastic lid .

Insert the Micro SD card in correct direction.

Press the Micro SD card in until it is set.

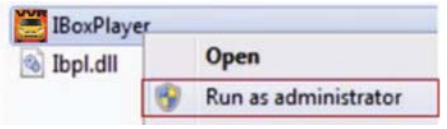
Close the plastic lid.

J. Restoring Memory Card

When you have backup the recorded files into PC and want to use the Micro SD card for other purposes, you have to restore it first so it can be used correctly.

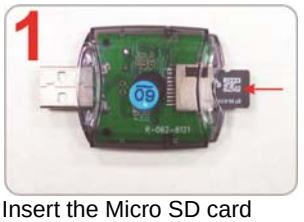
Notice:

1. Before formatting Micro SD card, please ensure to unlock it first.
2. If the card is unlocked but still cannot be formatted, this might be caused by Window Vista / 7 security restrictions. Please run the program as Administrator to prevent from this problem.

1	2
	

How to restore it?

Steps:



Insert the Micro SD card into the card reader (Please make sure the direction is correct)

Connect the card reader with the PC

3. Insert the CD in your PC and open the directory Find and run program and click on “Format Micro SD Card”.

4. Click on『Restore』to restore the Micro SD card. Please see the following steps as reference. After finished, you can use the memory card for other purposes.

Windows XP	Windows 7